What is claimed is:

1. An excitation control circuit comprising:

a driving circuit for driving a coil of a solenoid in response to a pulse signal supplied from an external device;

a counter-electromotive force absorbing circuit, inserted in a path of a return current of the coil, for absorbing counter-electromotive force produced by the coil; and

a return current circuit, connected in parallel to the counter-electromotive force absorbing circuit, for intermittently bypassing the return current.

2. An excitation control circuit as claimed in claim 1, wherein the return current circuit has a first transistor, whose current path is connected between a positive electrode and a negative electrode of the coil, wherein the first transistor is switched on according to a signal for defining the timing of bypassing the return current.

3. An excitation control circuit as claimed in claim 1, wherein the counter-electromotive force absorbing circuit includes:

a transistor whose current path is connected between a positive electrode and a negative electrode of the coil; and

a control system for switching on the transistor when an inter-terminal voltage of the transistor in its current path exceeds a predetermined value.

4. An excitation control circuit as claimed in claim 2, wherein the counter-electromotive force absorbing circuit includes:

a second transistor whose current path is connected between the positive

electrode and the negative electrode of the coil; and

a control system for switching on the second transistor when an inter-terminal voltage of the second transistor in its current path exceeds a predetermined value.

5. An excitation control circuit as claimed in claim 2, wherein the first transistor is a field effect transistor and the inter-terminal voltage of the first transistor is a voltage between a source and a drain of the field effect transistor.

6. An excitation control circuit as claimed in claim 3, wherein the transistor is a field effect transistor and the inter-terminal voltage of the transistor is a voltage between a source and a drain of the field effect transistor.

7. An excitation control circuit as claimed in claim 4, wherein the second transistor is a field effect transistor and the inter-terminal voltage of the second transistor is a voltage between a source and a drain of the field effect transistor.